

## ABSTRACT

To calculate information on a relative distance or positional relationship between an interface section and an object by detecting an electromagnetic wave transmitted through the interface section, and using the electromagnetic wave from the object to detect a relative position of the object with respect to the interface section. Information on the relative spatial position of an object 101 with respect to an interface section 102 that has an arbitrary shape and deals with transmission of information or signal from one side to the other side of the interface section 102 is detected with a spatial position detection method. An electromagnetic wave 106 radiated from the object 101 and transmitted through the interface section 102 is detected by an electromagnetic wave detection section 103, and based on the detection result, information on spatial position coordinates of the object 101 is calculated by a position calculation section 104.